

THE DISCOVERER OF ANÆSTHESIA: DR. HORACE WELLS OF HARTFORD*

HENRY WOOD ERVING

For we know that the whole creation groaneth and travaileth in pain together until now.—Romans viii: 22

There is probably no intelligent or thoughtful person at the present time who does not consider anæsthesia—insensibility to pain produced at will—one of the greatest and most wonderful of modern blessings; but one who, himself, has been under the surgeon's knife without suffering or dread—or more especially one who has seen his loved ones quieted, comforted, and their anguish subdued by its means, will ever regard anæsthesia as the very greatest gift of science, and its discoverer as perhaps the first of all the benefactors of humanity.

On March 26, 1660, Samuel Pepys records—"This day it is two years since it pleased God that I was cut for the stone at Mrs. Turner's in Salisbury Court". And he noted his resolve to celebrate the anniversary of this day as long as he lived, as a festival of thanksgiving.

A friend once described to me a similar operation without anæsthetics, which he witnessed about the middle of the last century—a shuddery picture; and one may possibly imagine the unspeakable suffering following battles, the agony of operations, the throes of childbirth, and the manifold pains which from these and other causes formerly everywhere prevailed, and are now eliminated or ameliorated by means of this blessed agency, and then give thanks that this tremendously important discovery was made before his time.

While the exhilarating and stupefying effects following the inhalation of the fumes of sulphuric ether and of nitrous oxide gas had been known for a considerable period, and although it is freely admitted that several minor surgical operations made painless by the aid of sulphuric ether fumes were performed by Dr. C. W. Long of Jefferson, Georgia, as early as 1842, it is apparent that he attached little surgical significance to such experimental work, nor made any attempt to follow it up to possible greater and more important results. Thus, it now seems to be generally recognized by medical

* Read before the Beaumont Club, March 10, 1933.

and scientific authorities that Horace Wells, a dentist in Hartford, Connecticut, was the real discoverer of the great principle of anaesthesia and of its enormous value and importance to surgery.

Dr. Wells believed such an attainment possible, and was eagerly and continuously searching for a method and means to bring it about.

The late Dr. Ernest A. Wells of Hartford, in a paper read before the New England Surgical Society in 1924, has related very fully the whole important history. Certain minor and perhaps unimportant happenings, however, connected with the immediate occurrence, which Dr. Wells mentions in a general way, are so vividly impressed upon my memory, when, as a very young man, I listened to the narrative from the lips of those who were present on the historic occasion, when the very idea was born, that perhaps it may be worth while to record them.

Dr. Horace Wells died before I was born, but I, myself, knew the other three of the four actors in the drama and often saw them in later life, and Mr. Charles T. Wells, son of Horace, was an intimate friend.

With the present vast number and variety of *entertainments*, it is difficult to imagine their paucity in Hartford, at least, seventy or more years ago. Lectures there were on numerous topics and were well attended. Illustrated lectures came much later. Occasionally a "panorama" was to be seen. One illustrating Pilgrim's Progress, for instance, was freely advertised in Sunday and week-day schools. The "panorama" consisted of scenes painted with more or less art on long strips of canvas, eight or ten feet in width, which were attached to vertical rollers and exhibited in a large open space on the stage, a person in front with a long pointer being the lecturer. I recall, too, when quite a small boy, attending a show of tiny marionettes, given in American Hall, in the American Hotel building east of the post office, which was demolished but a few years since. This I remember interested me greatly, insomuch that I tried subsequently to make certain moving figures myself and thus have a show of my own. These halls were equipped with long movable wooden benches or settees, with spindle backs and a wide top-rail, the edge of which was square and as sharp as possible. For dances these could be readily moved and piled up at the sides.

On the evening of December 10, 1844, there was an exhibition of the effects of the so-called "Laughing Gas", preceded by a short

lecture given by a Dr. Colton who then, and for many years after, made these entertainments his sole occupation.* This took place probably in Union Hall, located on the corner of Main and Pearl Streets, the site now occupied by the Hartford National Bank & Trust Company.

Horace Wells was born in Vermont, in 1815, and was in Hartford practicing dentistry as early as 1838, at that time with an office at No. 162½ Main Street. In 1844, however, according to the directory of that date, he was located at No. 8 Asylum Street. In 1847 his office is given at No. 180½ Main Street where also Dr. John M. Riggs, who apparently came to Hartford only a year or two previously, had his office in 1844. It was in the latter's office, in the second story of the building on the South corner of Main and Asylum Streets, that the great experiment was consummated.

Samuel A. Cooley, the fourth participant in this event, was a young man whose name first appears in the city directory in 1843, where he is then described as a drug clerk, probably at the shop of Abial A. Cooley, Druggist and Apothecary, on Front Street. "Colonel" Cooley, as he was subsequently called,—I never knew whence the title,—seems to have been later engaged in a variety of occupations—daguerreotypier, pistolmaker, railroad station-master, and mail route agent.

It was in the early '60s that I came to know something of these worthies. Dr. Riggs was one of the half-dozen older residents on Prospect Avenue, Hartford, when I went out there to live over fifty years ago, and I can now readily visualize Colonel Cooley as he later appeared, with a closely trimmed brown beard, walking briskly through the streets, apparently full of nervous vigor. Dr. Colton I met on many occasions, as his manager for a number of years, Mr. Thomas Collins, was an old friend of my father's and at our home he was always a guest during his engagements in Hartford. Consequently, there were free passes to the show for the boys, and so infrequent were entertainments which we could possibly attend, that no opportunity was ever neglected.

* Colonel Samuel Colt, the inventor of the revolver, and proprietor of the great arms factory in Hartford, was himself a showman in the thirties, and in at least one advertisement in Portland, Maine, October 13, 1832, advertised, under the name of Dr. S. Coult, practical chemist, an exhibition showing the effects of nitrous oxide gas.

MARINE LIST.
PORT OF HARTFORD.

ARRIVED.

Dec. 6. Steam Schr. *Uncas*, Mills, New York.
Sloop *Belie*, Brooks, Albany.
" Merchant, Babcock, New York.

SAILED.

9. Steam Schr. *Mohawk*, Clark, New York.

A GRAND EXHIBITION of the effects produced by inhaling **NITROUS OXIDE, EXHILARATING or LAUGHING GAS!** will be given at **UNION HALL, THIS (Tuesday) EVENING, Dec. 10th, 1844.**

FORTY GALLONS OF GAS will be prepared and administered to all in the audience who desire to inhale it.

TWELVE YOUNG MEN have volunteered to inhale the Gas, to commence the entertainment.

EIGHT STRONG MEN are engaged to occupy the front seats, to protect those under the influence of the Gas from injuring themselves or others. This course is adopted that no apprehension of danger may be entertained. Probably no one will attempt to fight.

THE EFFECT of the Gas is to make those who inhale it either Laugh, Sing, Dance, Speak or Fight, &c., &c., according to the leading trait of their character. They seem to retain consciousness enough to not say or do that which they would have occasion to regret.

N. B. The Gas will be administered only to gentlemen of the first respectability. The object is to make the entertainment in every respect a genteel affair.

MR. COLTON, who offers this entertainment, gave two of the same character last Spring, in the Broadway Tabernacle, New York, which were attended by over four thousand ladies and gentlemen, a full account of which may be found in the *New Mirror* of April 6th, by N. P. Willis. Being on a visit to Hartford, he offers this entertainment at the earnest solicitation of friends. It is his wish and intention to *deserve* and receive the patronage of the first class. He believes he can make them laugh more than they have for six months previous. The entertainment is *scientific* to those who make it scientific.

Those who inhale the Gas once, are always anxious to inhale it the second time. There is not an exception to this rule.

No language can describe the delightful sensation produced. Robert Southey, (poet) once said that "the atmosphere of the highest of all possible heavens must be composed of this Gas."

For a full account of the effect produced upon some of the most distinguished men of Europe, see Hooper's Medical Dictionary, under the head of Nitrogen.

MR. COLTON will be the first to inhale the Gas.

The History and properties of the Gas will be explained at the commencement of the entertainment.

The entertainment will close with a few of the most surprising **CHEMICAL EXPERIMENTS.**

MR. COLTON will give a private entertainment to those Ladies who desire to inhale the Gas, **TUESDAY**, between 12 and 1 o'clock, **FREE.** None but Ladies will be admitted. This is *intended* for those who desire to inhale the Gas, although others will be admitted.

Entertainment to commence at 7 o'clock. Tickets 25 cents—for sale at the principal Bookstores and at the Door.
dec 10 1d

(From—Hartford Courant, Dec. 10, 1844)

The gas used in these lectures by Dr. Colton was contained in a rubber bag, and was administered through a horrible wooden faucet, similar to the contraptions used in country cider barrels. It was given in quantities only sufficient to exhilarate or stimulate the subjects, and reacted upon them in divers and sundry ways. Some danced, some sang, others made impassioned orations, or indulged in serious arguments with imaginary opponents, while in many instances the freaks of the subjects were amazing, and thus I personally witnessed a number of incidents precisely like the one which inspired Dr. Wells' investigation.

Dr. Colton, after a short lecture regarding the nature and properties of the gas, always took the first dose himself,—self-administered,—declaiming quite wonderfully afterwards, and invariably winding up with his hand to his head and the remark, "The effect now is nearly gone." Volunteers were invited to the stage, and the row of seats was soon filled, and I might add that these and other lectures seemed always to have audiences composed of the best type of citizens.

On the evening of December 10, Dr. Wells was present, searchingly watching every movement of those engaged, with the most fervent interest. At length "Sam" Cooley took the gas and proved to be an interesting subject. He careered about the stage in an extraordinary manner when suddenly he espied in the audience an imaginary enemy and sprung over the ropes and after him. The innocent spectator, frightened out of his seven wits, summarily abandoned his seat and fled, running like a deer around the hall with Cooley in hot pursuit, the audience on its feet applauding in delight. The terrified victim finally dodged, vaulted over a settee and rushed down an aisle, Cooley a close second. Half way to the front the pursuer came to himself, looked about foolishly, and amid shouts of laughter and applause slid into his seat near to Dr. Wells. Presently he was seen to roll up his trousers and gaze in a puzzled sort of way at an excoriated and bloody leg.

"How did that happen, Sam?" exclaimed the doctor.

"I've no idea." Cooley replied, "it's the first I knew of it." He had scraped his shin on the sharp back of the settee when he sprung over it.

"Didn't you feel it at all?" exclaimed Dr. Wells.

"Not at all," said Sam, "I just now felt a little smarting on my shin and looked." And there and then was the great discovery made!

Dr. Wells was tremendously excited, and on the very next morning, Dr. Riggs in his office, with Dr. Colton giving the gas,—a larger quantity than anyone had ever before inhaled—extracted, after insensibility had been effected, a molar from Dr. Wells' jaw, with no pain whatever on the part of the patient. A great event had taken place—it was a momentous occasion.

After this, both Dr. Wells and Dr. Riggs used the gas frequently for the painless extraction of teeth, and it would appear that much general interest in the subject of anæsthesia prevailed about this time,* but following this one glorious, triumphant moment, the rest of Dr. Wells' life story is distressing.

During the next year, 1845, he went to Boston in order to interest the medical men of that city. He met Dr. Warren of the Massachusetts General Hospital, and arranged to use the gas to assist in a surgical operation, but it is supposed that the gas supply was not continued long enough, the patient cried out and the students at the clinic booed and jeered. There appears to have been two opposite opinions regarding the occurrence, however, some declared it to be a failure and as many insisted that it was a complete success. Be that as it may, Dr. Wells, who was an extremely sensitive man, returned home quite disheartened.

It was after his return from this unsatisfactory visit to Boston (possibly after his return later from Paris), that on December 7, 1846, he wrote a very temperate letter to the Editor of the Connecticut Courant, explaining certain features of the Boston clinic and remarking on the claim of Morton and Jackson made after his Boston demonstration, at which time he met and fully explained his discovery to both of these persons. This communication I have never seen reprinted, and I consider it of sufficient importance to include in this narration.

Hartford, Dec. 7, 1846.

MR. EDITOR:

You are aware that there has been much said of late respecting a gas, which, when inhaled, so paralyzes the system as to render it insensible to pain. The Massachusetts General Hospital has adopted its use, and amputations

*I recall that Dr. Asa Newton, dentist, who I think came to Hartford about 1851-2 and had his office over Talcott and Post's store on the north corner of Pratt and Main Streets, displayed a sign at the entrance reading thus: "A. Newton, Surgeon Dentist.—Gas administered a la Dr. Colton."

are now being performed without pain. Surgeons generally throughout the country, are anxiously waiting to know what it is, that they may make a trial of it, and many have already done so with uniform success. As Doctors Charles T. Jackson and W. T. G. Morton of Boston claimed to be the originators of this invaluable discovery, I will give a short history of its first introduction, that the public may decide to whom belongs the honor.

While reasoning from analogy, I was led to believe that the inhaling of any exhilarating gas, sufficient to cause a great nervous excitement, would so paralyze the system as to render it insensible to pain, or nearly so; for it is well known that when an individual is very much excited by passion, he scarcely feels the severe wounds which may at the time be inflicted, and the individual who is said to be "dead drunk" may receive a severe blow without the least pain, and when in this state is much more tenacious of life than when in the natural state. I accordingly resolved to try the experiment of inhaling an exhilarating gas myself for the purpose of having a tooth extracted. I then obtained some nitrous oxide gas, and requested Dr. J. M. Riggs to perform the operation at the moment that I should give the signal, resolving to have the tooth extracted before losing all consciousness. This experiment proved to be perfectly successful—it was attended with no pain whatever. I then performed the same operation on twelve or fifteen others with the same results.

I was so elated with this discovery that I started immediately for Boston, resolving to give it into the hands of proper persons, without expecting to derive any pecuniary benefit therefrom. I called on Drs. Warren and Hayward and made known to them the rest of the experiments I had made. They appeared to be interested in the matter, and treated me with much kindness and attention. I was invited by Dr. Warren, to address the medical class upon the subject, at the close of his lecture. I accordingly embraced the opportunity and took occasion to remark that the same results would be produced, let the nervous system be excited sufficiently by any means whatever; that I had made use of nitrous oxide gas or protoxide of nitrogen, as being the most harmless. I was then invited to administer it to one of their patients, who was expecting to have a limb amputated. I remained some two or three days in Boston for this purpose, but the patient decided not to have the operation performed at that time. It was then proposed that I should administer it to an individual for the purpose of extracting a tooth. Accordingly a large number of students, with several physicians, met to see the operation performed—one of their number to be the patient. Unfortunately for the experiment the gas bag was by mistake withdrawn much too soon, and he was but partially under its influence when the tooth was extracted. He testified that he experienced some pain, but not as usually attends the operation. As there was no other patient present, the experiment could not be repeated and as several expressed their opinion that it was a humbug affair (which in

fact was all the thanks I got) I accordingly left the next morning for home. While in Boston, I conversed with Drs. Charles T. Jackson and W. T. G. Morton, upon the subject, both of whom admitted it to be entirely new to them. Dr. Jackson expressed much surprise that severe operations could be performed without pain, and these are the individuals who claim to be the inventors. When I commenced giving the gas, I noticed one very remarkable circumstance attending it, which was that those who sat down resolving to have an operation performed under its influence, had no disposition to exert the muscular system in the least, but would remain quiet as if partially asleep. Whereas, if the same individuals were to inhale the gas under any (other) circumstances it would seem impossible to restrain them from over exertion.

I would here remark, that when I was deciding what exhilarating agent to use for this purpose, it immediately occurred to me that it would be best to use nitrous oxide gas or sulphuric ether. I advised with Dr. Marcy of this city, and by his advice I continued to use the former, as being the least likely to do injury, although it was attended with more trouble in its preparation. If Drs. Jackson and Morton claimed that they used something else, I replied that it is the same in principle, if not in name, and they cannot use anything which will produce more satisfactory results, and I have made those results known to both of these individuals more than a year since.

After making the above statements of facts, I leave it for the public to decide to whom belongs the honor of this discovery.

Yours truly,

HORACE WELLS, *Surgeon Dentist.*

It is known that a young man named William Morton, who seems to have been little qualified as a dental practitioner,* was at one time, for a short period, associated with Dr. Wells,—a connection that could not long endure, and to whom he imparted and illustrated all the information he had thus far gained in his study of anæsthesia. Morton, who subsequently went to Boston, with the assistance of a medical doctor there of the name of Jackson, manufactured nitrous oxide gas and utilized the fumes of sulphuric ether as well, disguising the latter by the use of perfumes, and this product

* Before the establishment of Dental Schools and Colleges, and before the present legal supervision, there were many practicing dentistry whose only preparation was a period of greater or less duration in some recognized practitioner's office, not even the apprenticeship required of a blacksmith. I knew one such intimately, a considerable portion of whose previous life had been passed in manufacturing and trade, and who subsequently got along very comfortably in a small country town as a dentist.

was successfully used by them in operations conducted by the surgeons of the Massachusetts General Hospital. Thus they established themselves with the faculty of that institution as the actual discoverers of the great principle of anæsthesia. When it is remembered, however, that they aimed to keep their formula and processes a secret, and even secured patents on their product, both here and abroad, giving them the sole rights to manufacture,—thus endeavoring to create a monopoly on this life-saving, essential, merciful agent, and that after the untimely death of Dr. Wells they attempted to purchase from his heirs all the rights of his discovery, it would seem as though they were discredited in the beginning.

These events culminated while Dr. Wells was abroad where he had gone to meet the scientific men of Paris, then the great seat of medicine. Here his claims were fully recognized, and he was treated with the utmost respect and consideration; an honorary degree of Doctor of Medicine was conferred upon him, and it was after his return that he met the disappointments and discouragements which led to a breakdown in health resulting in his death in 1848.

The late Dr. Samuel B. St. John of Hartford,—Yale College 1866, Columbia University, College of Physicians and Surgeons 1869,—a physician of high standing and an ophthalmologist in practice, once related to me a very interesting, as well as amusing incident connected in a way with a medical convention, held in the city of Boston, which he attended, where a friendly discussion took place between him and a distinguished physician of the Massachusetts city, each contending that the discoverer of anæsthesia was of his own town. Dr. St. John, of course, championed Wells, while his friend as strenuously insisted that Messrs. Morton and Jackson were the righteous claimants. There is erected in the city of Boston an imposing monument dedicated

TO THE DISCOVERER OF ANÆSTHESIA

“Why isn’t the great man particularly named?” queried Dr. St. John. “Why anonymous?” It was explained that the discovery itself being the result of joint effort, it seemed wise to glorify both in that impersonal manner, at which Dr. St. John chuckled a bit.

Soon after his return, in crossing Bushnell Park from his residence on Washington Street, having with him his camera, he took a snapshot of the Wells Memorial on the East Park with its simple inscription,

HORACE WELLS
THE DISCOVERER OF
ANÆSTHESIA
DECEMBER 1844

a print of which he sent to his friend with the scriptural reference on the back, *Acts xvii:23*, where, when he "overhauled the wolume and made a note on" (after the manner of Captain Cuttle) he would read from Paul's great address in Athens,

*For as I passed by, and beheld your devotions,
I found an altar with this inscription,*

TO THE UNKNOWN GOD.

*Whom therefore ye ignorantly worship,
Him declare I unto you.*